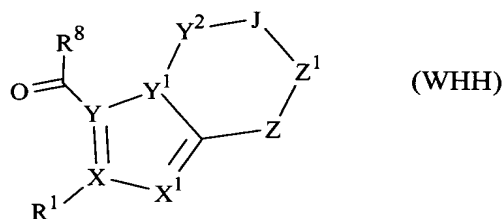


What is claimed is:

1. A compound of Formula (WHH)



5

wherein

R^1 is H, C_{1-6} alkyl, C_{1-6} haloalkyl, C_{1-6} alkoxy, C_{1-6} thioalkyl, cyano, halo, C_{3-7} cycloalkyl, $-C_{1-6}$ alkylene- C_{3-7} cycloalkyl, C_{2-6} alkenyl or C_{3-6} alkynyl;

10

R^8 is $O-C_{1-4}$ alkyl, $-N(CH_3)(OCH_3)$ or other suitable leaving group;

X is C;

Y is C;

X^1 is N;

Y^1 is N;

15

Y^2 is CH_2 ;

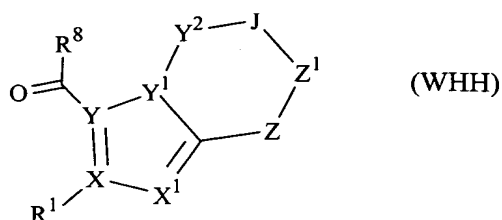
J is CH_2 or a bond;

Z^1 is CH_2 or $C(O)$; and

Z is N-V, wherein V is phenyl, 2-pyridyl or 3-pyridyl substituted with two to three of the same or different substituents selected from the group consisting of C_{1-4} alkyl, C_{1-4} alkoxy, C_{1-6} thioalkyl, C_{1-4} haloalkyl, halogen, $N(C_{1-4}alkyl)_2$ and CN.

20

2. A process for preparing a compound of Formula (WHH)



wherein

5 R^1 is H, C_{1-6} alkyl, C_{1-6} haloalkyl, C_{1-6} alkoxy, C_{1-6} thioalkyl, cyano, halo, C_{3-7} cycloalkyl, $-C_{1-6}$ alkylene- C_{3-7} cycloalkyl, C_{2-6} alkenyl or C_{3-6} alkynyl;

R^8 is $O-C_{1-4}$ alkyl, $-N(CH_3)(OCH_3)$ or other suitable leaving group;

X is C;

Y is C;

10 X^1 is N;

Y^1 is N;

Y^2 is CH_2 ;

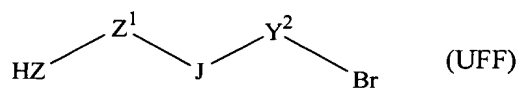
J is CH_2 or a bond;

Z^1 is CH_2 or $C(O)$; and

15 Z is N-V, wherein V is phenyl, 2-pyridyl or 3-pyridyl substituted with two to three of the same or different substituents selected from the group consisting of C_{1-4} alkyl, C_{1-4} alkoxy, C_{1-6} thioalkyl, C_{1-4} haloalkyl, halogen, $N(C_{1-4}alkyl)_2$ and CN;

20

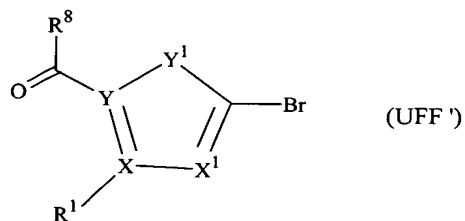
comprising reacting a compound of Formula (UFF)



wherein

Z, Z¹, J and Y² are defined as for Formula (WHH);

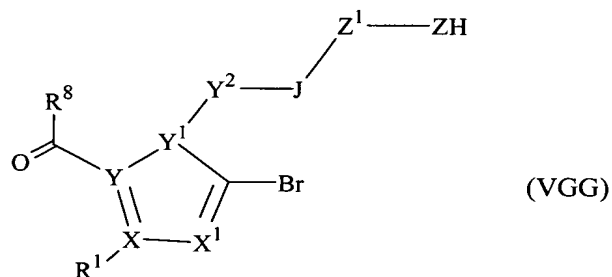
with a compound of Formula (UFF')



5 wherein

R¹, R⁸, X, Y, X¹ and Y¹ are defined as for Formula (WHH);

in the presence of a suitable base and polar aprotic solvent to yield a compound of Formula (VGG)



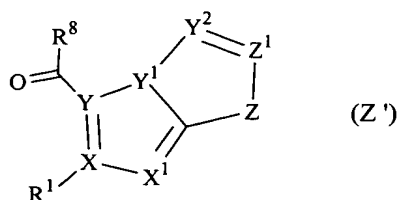
10

wherein

R¹, R⁸, X, Y, X¹, Y¹, Y², J, Z¹ and Z are defined as for Formula (WHH);

15 and reacting said compound of Formula (VGG) with a high-boiling point polar aprotic solvent and a suitable silver salt under suitably high temperature.

3. A compound of Formula (Z')



wherein

5 R^1 is H, C_{1-6} alkyl, C_{1-6} haloalkyl, C_{1-6} alkoxy, C_{1-6} thioalkyl, cyano, halo, C_{3-7} cycloalkyl, $-C_{1-6}$ alkylene- C_{3-7} cycloalkyl, C_{2-6} alkenyl or C_{3-6} alkynyl;

R^8 is $O-C_{1-4}$ alkyl, $-N(CH_3)(OCH_3)$ or other suitable leaving group;

X is C;

Y is C;

10 X^1 is N;

Y^1 is N;

Y^2 is CH or CR^5 ;

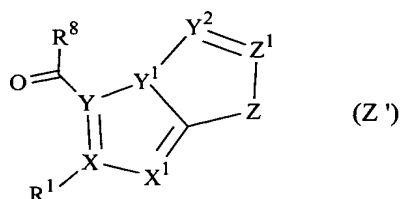
15 R^5 is selected from the group consisting of -CN, $-C_{1-4}$ alk(en)ylene-CN, halo, C_{1-6} alkyl, C_{2-6} alkenyl, C_{3-6} alkynyl, C_{1-6} haloalkyl, aryl, $-C_{1-4}$ alk(en)ylene-aryl, $-C_{1-4}$ alk(en)ylene-heterocyclo, heterocyclo, $-C_{1-4}$ alk(en)ylene- amino, $-C_{1-4}$ alkylene-amino- C_{1-4} alkyl, aryl-amino, -amino- $(C_{1-6}$ alk(en)yl) $_{1-2}$, -amino-aryl, -amino-heterocyclo, C_{1-6} alkoxy, -O-aryl and -O-heterocyclo;

20

Z^1 is C(O); and

25 Z is N-V, wherein V is phenyl, 2-pyridyl or 3-pyridyl substituted with two to three of the same or different substituents selected from the group consisting of C_{1-4} alkyl, C_{1-4} alkoxy, C_{1-6} thioalkyl, C_{1-4} haloalkyl, halogen, $N(C_{1-4}alkyl)_2$ and CN.

4. A process for preparing a compound of Formula (Z')



5

wherein

R¹ is H, C₁₋₆alkyl, C₁₋₆haloalkyl, C₁₋₆alkoxy, C₁₋₆thioalkyl, cyano, halo, C₃₋₇cycloalkyl, -C₁₋₆alkylene-C₃₋₇cycloalkyl, C₂₋₆alkenyl or C₃₋₆alkynyl;

10

R⁸ is O-C₁₋₄alkyl, -N(CH₃)(OCH₃) or other suitable leaving group;

X is C;

Y is C;

X¹ is N;

15

Y¹ is N;

Y² is CH or CR⁵;

20

R⁵ is selected from the group consisting of -CN, -C₁₋₄alk(en)ylene-CN, halo, C₁₋₆alkyl, C₂₋₆alkenyl, C₃₋₆alkynyl, C₁₋₆haloalkyl, aryl, -C₁₋₄alk(en)ylene-aryl, -C₁₋₄alk(en)ylene-heterocyclo, heterocyclo, -C₁₋₄alk(en)ylene-amino, -C₁₋₄alkylene-amino-C₁₋₄alkyl, aryl-amino, -amino-(C₁₋₆alk(en)yl)₁₋₂, -amino-aryl, -amino-heterocyclo, C₁₋₆alkoxy, -O-aryl and -O-heterocyclo;

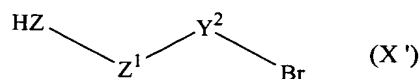
25

Z¹ is C(O); and

Z is N-V, wherein V is phenyl, 2-pyridyl or 3-pyridyl substituted with two to three of the same or different substituents selected from the group consisting of C₁₋₄alkyl, C₁₋₄alkoxy, C₁₋₆thioalkyl, C₁₋₄haloalkyl, halogen, N(C₁-C₄alkyl)₂ and CN;

5

comprising reacting a compound of Formula (X')

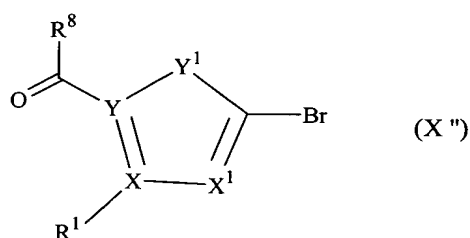


10

wherein

Z, Z¹ and Y² are defined as for Formula (Z');

with a compound of Formula (UFF')

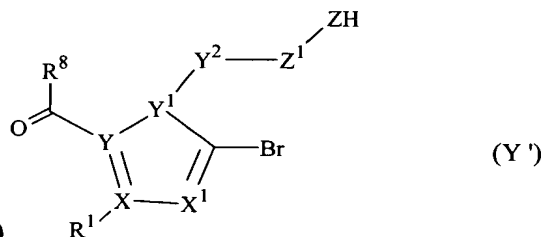


15

wherein

R¹, R⁸, X, Y, X¹ and Y¹ are defined as for Formula (Z');

in the presence of a suitable base and polar aprotic solvent to yield a compound of



Formula (Y')

20

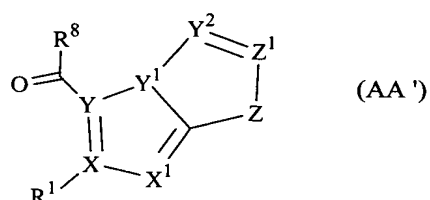
wherein

R¹, R⁸, X, Y, X¹, Y¹, Y², Z¹ and Z are defined as for Formula (Z');

and reacting said compound of Formula (Y') with a high-boiling point polar aprotic solvent and a suitable silver salt under suitably high temperature.

5. A compound of Formula (AA')

5



wherein

10 R^1 is H, C_{1-6} alkyl, C_{1-6} haloalkyl, C_{1-6} alkoxy, C_{1-6} thioalkyl, cyano, halo, C_{3-7} cycloalkyl, $-C_{1-6}$ alkylene- C_{3-7} cycloalkyl, C_{2-6} alkenyl or C_{3-6} alkynyl;

R^8 is $O-C_{1-4}$ alkyl, $-N(CH_3)(OCH_3)$ or other suitable leaving group;

X is C;

Y is C;

15 X^1 is N;

Y^1 is N;

Y^2 is CH or CR^5 ;

20 R^5 is selected from the group consisting of $-CN$, $-C_{1-4}$ alk(en)ylene- CN , halo, C_{1-6} alkyl, C_{2-6} alkenyl, C_{3-6} alkynyl, C_{1-6} haloalkyl, aryl, $-C_{1-4}$ alk(en)ylene-aryl, $-C_{1-4}$ alk(en)ylene-heterocyclo, heterocyclo, $-C_{1-4}$ alk(en)ylene-amino, $-C_{1-4}$ alkylene-amino- C_{1-4} alkyl, aryl-amino, -amino- $(C_{1-6}$ alk(en)yl) $_{1-2}$, -amino-aryl, -amino-heterocyclo, C_{1-6} alkoxy, $-O$ -aryl and $-O$ -heterocyclo;

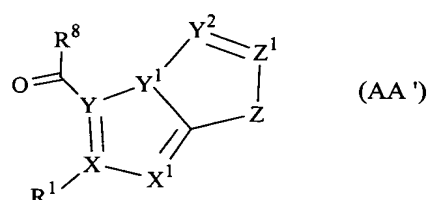
25

Z^1 is CR^7 ;

wherein R^7 is chloro or bromo; and

Z is N-V, wherein V is phenyl, 2-pyridyl or 3-pyridyl substituted with two to three of the same or different substituents selected from the group consisting of C_{1-4} alkyl, C_{1-4} alkoxy, C_{1-6} thioalkyl, C_{1-4} haloalkyl, halogen, $N(C_{1-4}alkyl)_2$ and CN.

6. A process for preparing a compound of Formula (AA')



wherein

R^1 is H, C_{1-6} alkyl, C_{1-6} haloalkyl, C_{1-6} alkoxy, C_{1-6} thioalkyl, cyano, halo, C_{3-7} cycloalkyl, $-C_{1-6}alkylene-C_{3-7}cycloalkyl$, $C_{2-6}alkenyl$ or $C_{3-6}alkynyl$;

R^8 is $O-C_{1-4}alkyl$, $-N(CH_3)(OCH_3)$ or other suitable leaving group;

X is C;

Y is C;

X^1 is N;

Y^1 is N;

Y^2 is CH or CR^5 ;

R^5 is selected from the group consisting of $-CN$, $-C_{1-4}alk(en)ylene-CN$, halo, $C_{1-6}alkyl$, $C_{2-6}alkenyl$, $C_{3-6}alkynyl$, $C_{1-6}haloalkyl$, aryl, $-C_{1-4}alk(en)ylene-aryl$, $-C_{1-4}alk(en)ylene-heterocyclo$, heterocyclo, $-C_{1-4}alk(en)ylene-amino$, $-C_{1-4}alkylene-amino-C_{1-4}alkyl$, aryl-amino, $-amino-(C_{1-6}alk(en)yl)_{1,2}$, -

amino-aryl, -amino-heterocyclo, C₁₋₆alkoxy, -O-aryl and -O-heterocyclo;

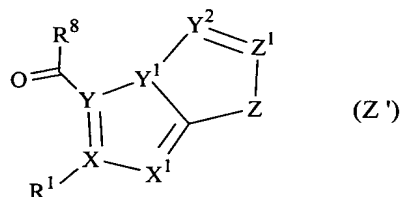
Z¹ is CR⁷;

wherein R⁷ is chloro or bromo; and

5 Z is N-V, wherein V is phenyl, 2-pyridyl or 3-pyridyl substituted with two to three of the same or different substituents selected from the group consisting of C₁₋₄alkyl, C₁₋₄alkoxy, C₁₋₆thioalkyl, C₁₋₄haloalkyl, halogen, N(C₁-C₄alkyl)₂ and CN;

10

comprising reacting a compound of Formula (Z')



wherein

15 R¹, R⁸, X, Y, X¹, Y¹, Y², and Z are defined as for Formula (AA');
and

Z¹ is C(O);

with phosphoryl trichloride or phosphoryl tribromide, neat or with a suitable solvent and without a base or with a suitable base.